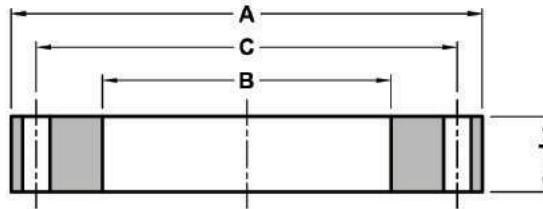




# **AWWA FLANGES**

# CLASS B & D SO-RING

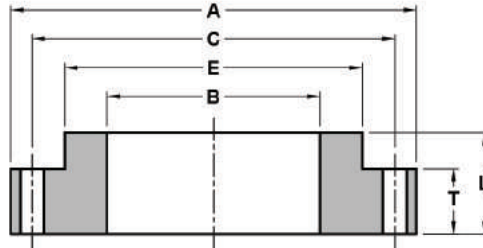


## Class B 86psi & Class D175-150psi

Unit : mm

Nominal Size		O.D of Flange	Diam. Of Bore	Diam. Of Bolt Circle	Nuber of Bolts	Diam. Of Bolts	Thickness of Flange	
in.	mm						Class B	Class D
		A	B	C			T	T
4	100	228.6	116.1	190.5	8	15.9	15.9	15.9
5	125	254	143.8	215.9	8	19.1	15.9	15.9
6	150	279.4	170.7	241.3	8	19.1	17.5	17.5
8	200	342.9	221.5	298.5	8	19.1	17.5	17.5
10	250	406.4	276.4	362	12	22.2	17.5	17.5
12	300	482.6	327.2	431.8	12	22.2	17.5	20.6
14	350	533.4	360.4	476.3	12	25.4	17.5	23.8
16	400	596.9	411.2	539.8	16	25.4	17.5	25.4
18	450	635	462	577.9	16	28.6	17.5	27
20	500	698.5	512.8	635	20	28.6	17.5	28.6
22	550	749.3	563.6	692.2	20	31.8	19.1	30.2
24	600	812.8	614.4	749.3	20	31.8	19.1	31.8
26	650	870	-	806.5	24	31.8	20.6	33.3
28	700	927.1	-	863.6	28	31.8	22.2	33.3
30	750	984.3	-	914.4	28	31.8	22.2	34.9
32	800	1060.5	-	977.9	28	38.1	23.8	38.1
34	850	1111.3	-	1028.7	32	38.1	23.8	38.1
36	900	1168.4	-	1085.9	32	38.1	25.4	41.3
38	950	1238.3	-	1149.4	32	38.1	25.4	41.3
40	1000	1289.1	-	1200.2	36	38.1	25.4	41.3
42	1050	1346.2	-	1257.3	36	38.1	28.6	44.5
44	1100	1403.4	-	1314.5	40	38.1	28.6	44.5
46	1150	1454.2	-	1365.3	40	38.1	28.6	44.5
48	1200	1511.3	-	1422.4	44	38.1	31.8	47.6
50	1250	1568.5	-	1479.6	44	44.5	31.8	50.8
52	1300	1625.6	-	1536.7	44	44.5	31.8	50.8
54	1350	1682.8	-	1593.9	44	44.5	34.9	54
60	1500	1854.2	-	1759	52	44.5	38.1	57.2
66	1650	2032	-	1930.4	52	44.5	41.3	63.5
72	1800	2197.1	-	2095.5	60	44.5	44.5	66.7
78	1950	2362.2	-	2260.6	64	50.8	50.8	69.9
84	2100	2533.7	-	2425.7	64	50.8	50.8	73
90	2250	2705.1	-	2590.8	68	57.2	57.2	76.2
96	2400	2876.6	-	2755.9	68	57.2	57.2	82.6
102	2550	3048	-	2908.3	72	63.5	63.5	82.6
108	2700	3219.5	-	3067.1	72	63.5	63.5	85.7
114	2850	3339.9	-	3219.5	76	69.9	69.9	88.9
120	3000	3562.4	-	3371.9	76	69.9	69.9	88.9
126	3150	3733.8	-	3537	80	76.2	76.2	95.3
132	3300	3905.3	-	3702.1	80	76.2	76.2	98.4
138	3450	4076.7	-	3860.8	84	82.6	82.6	101.6
144	3600	4248.2	-	4019.6	84	82.6	82.6	104.8

## CLASS D & E SO-HUB

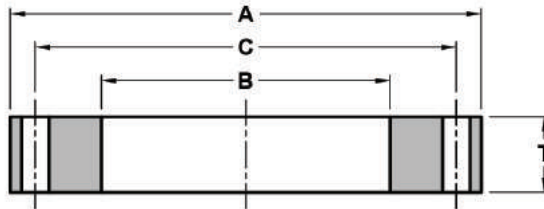


### Class D 175-150psi & Class E 275psi

Unit : mm

Nominal Size		O.D of Flange	Diam. Of Bore	Diam. Of Bolt Circle	Nuber of Bolts	Diam. Of Bolts	Thickness of Flange					
							Class D			Class E		
in.	mm	A	B	C			T	L	H	T	L	H
4	100	228.6	116.1	190.5	8	15.9	12.7	22.2	134.9	23.8	33.3	134.9
5	125	254	143.8	215.9	8	19.1	14.3	31.8	160.3	23.8	36.5	163.5
6	150	279.4	170.7	241.3	8	19.1	14.3	31.8	192.1	25.4	39.7	192.1
8	200	342.9	221.5	298.5	8	19.1	14.3	31.8	246.1	28.6	44.5	246.1
10	250	406.4	276.4	362	12	22.2	17.5	31.8	304.8	30.2	49.2	304.8
12	300	482.6	327.2	431.8	12	22.2	17.5	31.8	365.1	31.8	55.6	365.1
14	350	533.4	360.4	476.3	12	25.4	19.1	31.8	400.1	34.9	57.2	400.1
16	400	596.9	411.2	539.8	16	25.4	19.1	31.8	457.2	36.5	63.5	457.2
18	450	635	462	577.9	16	28.6	19.1	31.8	504.8	39.7	68.3	504.8
20	500	698.5	512.8	635	20	28.6	19.1	31.8	558.8	42.9	73	558.8
22	550	749.3	563.6	692.2	20	31.8	25.4	44.5	616	46	79.4	609.9
24	600	812.8	614.4	749.3	20	31.8	25.4	44.5	663.6	47.6	82.6	663.6
26	650	870	665.2	806.5	24	31.8	25.4	44.5	723.9	50.8	85.7	723.9
28	700	927.1	716	863.6	28	31.8	25.4	44.5	774.7	52.4	87.3	781.1
30	750	984.3	766.8	914.4	28	31.8	25.4	44.5	825.5	54	88.9	831.9
32	800	1060.5	817.6	977.9	28	38.1	28.6	44.5	882.7	57.2	92.1	889
34	850	1111.3	868.4	1028.7	32	38.1	28.6	44.5	933.5	58.7	93.7	939.8
36	900	1168.4	919.2	1085.9	32	38.1	28.6	44.5	984.3	60.3	95.3	997
38	950	1238.3	970	1149.4	32	38.1	28.6	44.5	1035.1	60.3	95.3	1060.5
40	1000	1289.1	1020.8	1200.2	36	38.1	28.6	44.5	1092.2	63.5	98.4	1111.3
42	1050	1346.2	1071.6	1257.3	36	38.1	31.8	44.5	1143	66.7	101.6	1168.4
44	1100	1403.4	1122.4	1314.5	40	38.1	31.8	57.2	1193.8	66.7	101.6	1219.2
46	1150	1454.2	1173.2	1365.3	40	38.1	31.8	57.2	1244.6	68.3	103.2	1270
48	1200	1511.3	1224	1422.4	44	38.1	34.9	63.5	1295.4	69.9	104.8	1327.2
50	1250	1568.5	1274.8	1479.6	44	44.5	34.9	63.5	1346.2	69.9	104.8	1378
52	1300	1625.6	1325.6	1536.7	44	44.5	34.9	63.5	1397	73	108	1435.1
54	1350	1682.8	1376.4	1593.9	44	44.5	34.9	63.5	1447.8	76.2	111.1	1492.3
60	1500	1854.2	1528.8	1759	52	44.5	38.1	69.9	1600.2	79.4	114.3	1657.4
66	1650	2032	1681.2	1930.4	52	44.5	38.1	69.9	1752.6	85.7	123.8	1816.1
72	1800	2197.1	1833.6	2095.5	60	44.5	38.1	69.9	1905	88.9	127	1993.9
78	1950	2362.2	1986	2260.6	64	50.8	44.5	76.2	2063.8	98.4	136.5	2146.3
84	2100	2533.7	2138.4	2425.7	64	50.8	44.5	76.2	2222.5	98.4	136.5	2298.7
90	2250	2705.1	2290.8	2590.8	68	57.2	50.8	82.6	2381.3	108	146.1	2457.5
96	2400	2876.6	2443.2	2755.9	68	57.2	50.8	82.6	2540	108	146.1	2609.9

# CLASS E & F SO-RING



## Class E 275psi & Class F 300psi

Unit : mm

Nominal Size		O.D of Flange		Diam. Of Bore		Diam. Of Bolt Circle		Number of Bolts		Diam. of Bolts		Thickness of Flange	
		A		B		C				T			
in.	mm	CLASS E	CLASS F	CLASS E	CLASS F	CLASS E	CLASS F	CLASS E	CLASS F	CLASS E	CLASS F	CLASS E	CLASS F
4	100	228.6	254	116.1	116.1	190.5	200.2	8	8	15.9	19.1	28.6	28.7
5	125	254	279.4	143.8	143.8	215.9	235	8	8	19.1	19.1	30.2	30.7
6	150	279.4	317.5	170.7	170.9	241.3	269.7	8	12	19.1	19.1	33.4	33.3
8	200	342.9	381	221.5	221.7	298.5	330.2	8	12	19.1	22.2	38.1	33.3
10	250	406.4	444.5	276.4	276.4	362	387.4	12	16	22.2	25.4	39.7	38.1
12	300	482.6	520.7	327.2	327.2	431.8	450.9	12	16	22.2	28.6	44.5	41.4
14	350	533.4	584.2	360.4	360.4	476.3	514.4	12	20	25.4	28.6	47.6	49.3
16	400	596.9	647.7	411.2	411.2	539.8	571.5	16	20	25.4	31.8	50.8	54.4
18	450	635	711.2	462	462	577.9	628.7	16	24	28.6	31.8	54	57.2
20	500	698.5	774.7	512.8	512.8	635	685.8	20	24	28.6	31.8	60.3	59.2
22	550	749.3	838.2	563.6	563.6	692.2	743	20	24	31.8	31.8	63.5	63.5
24	600	812.8	914.4	614.4	614.4	749.3	812.8	20	24	31.8	38.1	66.7	68.3
26	650	870	971.6	-	666.8	806.5	876.3	24	28	31.8	44.5	69.9	76.2
28	700	927.1	1035.1	-	717.6	863.6	939.8	28	28	31.8	44.5	69.9	79.5
30	750	984.3	1092.2	-	768.4	914.4	997	28	28	31.8	44.5	73	80
32	800	1060.5	1149.4	-	819.2	977.9	1054.1	28	28	38.1	44.5	76.2	82.6
34	850	1111.3	1206.5	-	870	1028.7	1104.9	32	28	38.1	44.5	76.2	85.9
36	900	1168.4	1270	-	920.8	1085.9	1168.4	32	32	38.1	50.8	79.4	87.9
38	950	1238.3	1327.2	-	971.6	1149.4	1219.2	32	32	38.1	50.8	79.4	88.9
40	1000	1289.1	1378	-	1022.4	1200.2	1276.4	36	36	38.1	50.8	82.6	92.2
42	1050	1346.2	1447.8	-	1073.2	1257.3	1339.9	36	36	38.1	50.8	85.7	96.8
44	1100	1403.4	1505	-	1124	1314.5	1397	40	36	38.1	50.8	85.7	101.6
46	1150	1454.2	1562.1	-	1174	1365.3	1454.2	40	40	38.1	50.8	87.3	104.9
48	1200	1511.3	1651	-	1225.6	1422.4	1543.1	44	40	38.1	50.8	88.9	114.3

## BLIND THICKNESS

Blind

Unit : mm

Nominal Size		Mating Flange ID	O.D of Flange			
			Class B	Class D	Class E	Class F
in.	mm		86 psi	175-150psi	275psi	300psi
4	100	116	15.88	15.88	28.58	28.7
5	125	144	15.88	16.51	30.18	30.73
6	150	171	17.48	17.59	33.35	33.27
8	200	221	17.48	20.62	38.1	33.27
10	250	276	17.48	24.21	39.7	38.1
12	300	327	18.26	28.37	44.45	41.4
14	350	360	20.1	28.78	47.63	49.28
16	400	411	22.66	32.13	50.8	54.36
18	450	462	24.13	33.81	53.98	57.15
20	500	513	26.42	36.77	60.33	59.18
22	550	564	28.74	39.83	63.5	63.5
24	600	648	30.89	42.18	66.68	68.53
26	650	699	33.2	45.37	69.85	76.2
28	700	749	35.5	48.4	69.85	79.5
30	750	800	37.53	51	73.03	80.42
32	800	851	40.16	54.6	76.2	84.62
34	850	902	42.19	57.21	77.46	88.25
36	900	956	44.48	60.2	81.51	93.25
38	950	1006	47.06	63.66	86.2	96.9
40	1000	1057	49.09	66.28	89.74	101.4
42	1050	1108	51.4	69.32	93.86	105.92
44	1100	1159	53.7	72.36	97.97	110.19
46	1150	1210	55.73	74.99	101.53	114.43
48	1200	1260	58.03	78.03	105.65	121.44
50	1250	1314	60.38	81.17	109.9	-
52	1300	1365	62.69	84.21	114.02	-
54	1350	1416	64.99	87.25	118.14	-
60	1500	1568	71.63	95.97	129.95	-
66	1650	1724	78.53	105.06	142.26	-
72	1800	1876	85.17	113.8	154.08	-